

**REMARKS**

Claims 1-18 have been examined. With this amendment, claims 2 and 16 have been canceled. Claims 1, 3-15, 17 and 18 are all the claims pending in the application.

**1. Claim Rejections Under 35 U.S.C. § 112**

The Examiner has rejected claims 1-5 under 35 U.S.C. § 112, second paragraph, as failing to set forth the subject matter which Applicant regards as the invention. Specifically, the Examiner contends that claim 1 recites a broad limitation and then also recites a narrow limitation.

Applicant submits that the modifications to claim 1 obviate the rejection.

**2. Claim 1, 6 and 7**

The Examiner has rejected claims 1, 6 and 7 under 35 U.S.C. § 102(b) as being anticipated by Yamamoto *et al.* (US 4,233,506) ["Yamamoto"]. For at least the following reasons, Applicant traverses the rejection.

Claim 1 recites that "the thin film [at the end facet of the piece of fiber] is a filter or a saturable absorber." Yamamoto, at most, discloses that film 19 is a transparent electrode of a photo-sensor (col. 6, lines 19-25, Fig. 8(f)). Accordingly, Applicant submits that Yamamoto does not disclose or suggest at least this feature.

Because claims 6 and 7 recite a feature similar to that given above with respect to claim 1, Applicant submits that claims 6 and 7 are patentable over Yamamoto for reasons similar to those given above with respect to claim 1.

**3. Claims 1, 2, 5, 11, 12 and 14-16**

The Examiner has rejected claims 1, 2, 5, 11, 12 and 14-16 under 35 U.S.C. § 102(e) as being anticipated by Kim *et al.* (US Patent Publication No.: 2002/0197008). For at least the following reasons, Applicant traverses the rejection.

Claim 1 recites a planar lightwave circuit that comprises “an optical device, where the optical device comprises at least one piece of waveguide structure, which is a piece of fiber that has at least one thin film layer deposited on an end facet, wherein the thin film is a filter or a saturable absorber.” The Examiner contends that Kim discloses a waveguide 200a that corresponds to the claimed waveguide and that thin-film filter 201 corresponds to the claimed thin film. Office Action at page 5.

Kim discloses a planar lightwave circuit that comprises waveguides 202a (paragraph 013, Fig. 2). There is no disclosure or suggestion that waveguides 202a are fibers. In fact, since element 200 is a planar lightwave circuit, Applicant submits that waveguide 202a would most probably be a slab waveguide. Accordingly, Kim does not disclose or suggest at least this feature.

Because claim 11 recites a feature similar to that given above with respect to claim 1, Applicant submits that claim 11 is patentable or at least reasons similar to those given above with respect to claim 1.

Applicant submits that claims 5, 12, 14 and 15 are patentable at least by virtue of their dependency on claim 1.

Claims 2 and 16 have been canceled.

**4. Claims 1, 3, 4, 6, 7 and 9**

The Examiner has rejected claims 1, 3, 4, 6, 7 and 9 under 35 U.S.C. § 102(e) as being anticipated by Lee et al. (US 6,909,830) ["Lee"]. For at least the following reasons, Applicant traverses the rejection.

Claim 1 recites a planar lightwave circuit that comprises "an optical device, where the optical device comprises at least one piece of waveguide structure, which is a piece of fiber that has at least one thin film layer deposited on an end facet, wherein the thin film is a filter or a saturable absorber." The Examiner contends that Lee disclose a waveguide structure (optical probe) 2000 that can be a fiber bundle or array. Office Action at page 5. However, the Examiner does not provide any citation in Lee that disclose or suggest that its optical probe 2000 contains fibers.

Applicant submits that a waveguide can be in a plurality of forms (ex. fiber and slab); therefore, a waveguide need not necessarily be a fiber waveguide. Thus, Applicants submit that it is not inherent that the waveguide 2060 is a fiber waveguide.

In addition, Lee discloses that the optical probe 2000 consists of a substrate 2010 with a waveguide 2060 (col. 3, lines 54-56). Applicant submits that this would lead one skilled in the art to conclude that the optical probe of Lee is not a fiber waveguide, but a slab waveguide.

Further, the Examiner agreed in the Office Action of September 21, 2004, (at page 2) that Lee does not disclose that waveguide 2060 of optical probe 2000 is a fiber. Accordingly, Applicant submits that it is improper for the Examiner to shift his position without providing evidence in Lee that optical probe 2000 includes fibers.

Therefore, for at least the reasons given above, Applicant submits that claim 1 is patentable over Lee. Applicant also submits that claims 3 and 4 are patentable at least by virtue of their dependency on claim 1.

Because the Examiner's contentions in the rejection of claim 6 are the same as those given in the rejection of claim 1 and because Lee does not disclose the claimed bundles of fibers for reasons analogous to those given above with respect to claim 1, Applicant submits that claim 6 is patentable.

Because the Examiner's contentions in the rejection of claim 7 are the same as those given in the rejection of claim 1 and because Lee does not disclose the claimed fibers, Applicant submits that Lee cannot disclose the claimed method of processing an optical device as set forth in claims 7 and 9.

**5. Allowable Subject Matter**

Applicant thanks the Examiner for allowing claims 17 and 18. Applicant also thanks the Examiner for finding allowable subject matter in claims 8, 10 and 13 and for indicating that these claims would be allowable if rewritten in independent form.

Applicant has rewritten claims 8, 10 and 13 in independent form. Applicant has also made modifications to claim 13 that obviate the §112, second paragraph, issues.

**6. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

**Amendment under 37 C.F.R. § 1.111**  
**U.S. Serial No. 10/716,467**

**Attorney Docket No.: Q78456**

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

  
Bhaskar Kakarla  
Registration No. 54,627

Date: December 7, 2005